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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,029	09/08/2004	Takeo Kitamura	2004_1303A	7688

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WENDEROTH, LIND & PONACK L.L.P.
2033 K. STREET, NW
SUITE 800
WASHINGTON, DC 20006

EXAMINER	
STIMPERT, PHILIP EARL	
ART UNIT	**PAPER NUMBER**
3746	
MAIL DATE	**DELIVERY MODE**
05/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/507,029	KITAMURA ET AL.	
	Examiner	Art Unit	
	Philip Stimpert	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 September 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kayukama et al. (US 6,179,578) in view of Hisanaga et al. (US 6,152,713).

3. Kayukawa et al. teach a compressor (see Fig. 1) comprising a compressing mechanism for compressing a fluid that contains lubricating oil (col. 2, ln. 38-39), a separation chamber (43), having an interior space that is to have revolved therein fluid compressed by the compressing mechanism such that at least part of the lubricating oil contained in the fluid is separated from the fluid by centrifugal force produced by revolution of the fluid in the interior space, an exhaust hole (51) at an upper end (left in Fig. 2) for exhausting the fluid from the interior space, and a feed hole (comprising the intersection of passage 18 and the interior surface of the separation chamber 41) for introducing the compressed fluid into the interior space in a direction downwardly away from the exhaust hole with respect to a vertical axis (horizontal in Fig. 2). Kayukawa does not teach an oil-storage chamber, nor a communication passage between such an oil-storage chamber and the interior space. Hisanaga et al. teach an oil-storage chamber (130, see in particular Fig. 12) and a communication passage (123) which opens in a tangential direction (see Fig. 14). Hisanaga et al. teach that their particular

arrangement of these elements allows for a stable and constant supply of lubricating oil to the compressing mechanism (col. 16, ln. 52-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the oil separator of Kayukawa et al. to provide an oil-storage chamber and communication passage as taught by Hisanaga et al. in order to allow for a stable and constant supply of lubricating oil to the compressing mechanism of Kayukawa et al. One of ordinary skill in the art would further appreciate that fluid flowing from the communication passage into the interior space would not substantially disturb the revolution of the compressed fluid therein.

Response to Arguments

4. Applicant's arguments, see page 3, filed 27 March 2008, with respect to indefiniteness have been fully considered and are persuasive. The rejection of claim 12 has been withdrawn.

5. Applicant's remaining arguments have been fully considered but they are not persuasive.

6. The applicant has argued (see page 4-5) that the structure taught by Hisanaga et al. would disturb revolution of the fluid. In response, the examiner notes that the structure which the applicant has disclosed would result in at least a minimal disturbance in the case of fluid flowing back from the storage chamber into the separation chamber. The examiner further notes that revolution of the fluid would continue if some fluid flowed into the separation chamber via the communication passage of Hisanaga et al. It is thus deemed that the language in the claim "said

communication passage opening in a tangential direction of said interior space so that any fluid flowing into said interior space, via said communication passage, from said upper part of said oil-storage chamber does not disturb revolution of the fluid," does not patentably distinguish over the combination of Kayukawa et al. and Hisanaga et al.

7. The applicant has further argued (see page 5) that the oil passage 123 of Hisanaga et al. does not constitute a communication passage as required by claim 12. However, it is indisputable that 123 provides fluid communication between a separation chamber and an oil-storage chamber, which in combination with the structural elements of the passage noted in the rejection above appears to satisfy the limitations actually present in the claim. Further, as stated in the preceding paragraph, fluid flowing back into the separation chamber from the storage chamber would flow against the revolution in the chamber, but this would not substantially prevent the fluid revolution, and therefore is not considered to disturb it.

8. The applicant has also argued that there is no feed hole as required by claim 12, since Fig. 1 shows the passage 18 directed substantially upward toward the separation chamber. However, as defined by the claim, downwardly away is defined with respect to a vertical axis of the separation with the exhaust hole at an upper end. Thus, the vertical axis is shown horizontally in the drawings of Kayukawa et al., but since the relationship between the feed and exhaust holes of Kayukawa et al. is as described in claim 12, the limitations of the claim are met by the feed hole (18) of that reference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Stimpert whose telephone number is (571)270-1890. The examiner can normally be reached on Mon-Fri 7:30AM-4:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art Unit 3683

/P. S./
Examiner, Art Unit 3746
12 May 08